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| IBM CORP (YA) C/O YEE & ASSOCIATES PC P.O. BOX 802333 DALLAS, TX 75380 | | | EXAMINER SWEARINGEN, JEFFREY R | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ptonotifs@yeciipaw.com

Office Action Summary

Application No.

09/714,724

Applicant(s)

BARILLOU ET AL.

Examiner

Jeffrey R. Swearingen

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-12, 15-24 and 27-36 is/are pending in the application.
- 4a) Of the above claim(s) 15-24 and 27-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-12 and 37-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/C)
- Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 7/14/2008 have been fully considered but they are not persuasive.
2. Applicant argues that Masters fails to disclose each client is uniquely associated with a local service manager. "The directory service includes a database that stores information concerning the attributes of the individual servers and end-users...". Masters, column 10, lines 64-66.
3. Applicant argues that Masters fails to disclose each local service manager is uniquely associated with a distributed service manager. "Each server also has its own directory service process by which other applications make requests to read and write information." Masters, column 11, lines 4-6.
4. Applicant argues that Masters fails to disclose the local service manager has information about and provides access to networked services defined within a respective local region of the distributed data processing system. "...a repository of information distributed across the LAN that defines which remote sites are reachable from any particular site and how those remote sites may be reached. Masters, column 10, lines 61-64.
5. Applicant argues that Masters fails to disclose the distributed service managers contain information from prior requests for networked services. "The site connector object includes its common name within the directory service so that the site connector object may be located by other objects; a list of site addresses of remote sites that are reachable from the source site for use in building a table of routing information..." Masters, column 11, lines 27-32. The table is built, which implies prior requests are used in building the table.
6. Applicant argues that Masters fails to disclose the local service manager returns information about a matching networked service from the local service manager to the requesting client. "The site connector object includes its common name within the directory service so that the site connector object may be located by other objects." Masters, column 11, lines 27-30. A directory implies searching for an object and returning the location of the object.
7. Applicant argues that Masters fails to disclose responsive to a determination that the local service manager does not have information about a matching networked service, forwarding the request for a

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networked service from the local service manager to a distributed service manager associated with the local service manager. "Each server also has its own directory service process by which other applications make requests to read and write information...The only requirement is that each server have connectivity to an instance of the directory service in order that information can be read or written as appropriate." Masters, column 11, lines 4-11. If a request is not present in the directory, it will contact the main directory service so information can be updated..."read or written as appropriate".

8. Applicant argues that Masters fails to disclose responsive to a determination that the distributed service manager does not have information about one or more matching networked services, broadcasting the request for a networked service from the distributed service manager to all distributed managers in the distributed data processing system. "Each server also has its own directory service process by which other applications make requests to read and write information...The only requirement is that each server have connectivity to an instance of the directory service in order that information can be read or written as appropriate." Masters, column 11, lines 4-11. If a request is not present in the directory, it will contact the main directory service so information can be updated..."broadcasting the request for a networked service from the distributed service manager to all distributed managers".

9. Applicant argues that Masters fails to disclose real-time network metrics. The implementation of the cost is explained in column 12, lines 35-65. Cost changes based on if the server is too busy – a real-time network metric.

10. Applicant argues that Masters fails to disclose configuring the local service manager to not provide access to object request broker (ORB) services that provide internal service and which are valid only in a scope of a local ORB. "...a repository of information distributed across the LAN that defines which remote sites are reachable from any particular site and how those remote sites may be reached. Masters, column 10, lines 61-64.

11. Applicant argues that Masters fails to disclose configuring the local service manager to provide access to ORB services that are instantiated on each ORB only through requests based on an ORB identifier. Masters, column 11, lines 15-25.

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12. Applicant argues that Masters fails to disclose configuring the local service manager to provide access to ORB services that may be accessed from outside the scope of the local ORB through requests based on both a service specification string and an ORB identifier. "...a repository of information distributed across the LAN that defines which remote sites are reachable from any particular site and how those remote sites may be reached. Masters, column 10, lines 61-64.

13. Applicant argues that Masters fails to disclose determining, based on the request, whether to return a single matched network service of the set of matched network services or the set of matched network services. "...a repository of information distributed across the LAN that defines which remote sites are reachable from any particular site and how those remote sites may be reached. Masters, column 10, lines 61-64.

14. Applicant argues that Masters fails to disclose a plurality of types of networked services are available in the distributed data processing system, and wherein one of the characteristics of a matching service is a type of service. "...a repository of information distributed across the LAN that defines which remote sites are reachable from any particular site and how those remote sites may be reached. Masters, column 10, lines 61-64.

15. Applicant argues that Masters fails to disclose each of distributed service managers caches information resulting from requests of supported clients, and wherein the information which respective distributed service manager differs according to the requests of supported clients. "Each server also has its own directory service process by which other applications make requests to read and write information...The only requirement is that each server have connectivity to an instance of the directory service in order that information can be read or written as appropriate." Masters, column 11, lines 4-11. If a request is not present in the directory, it will contact the main directory service so information can be updated..."read or written as appropriate".

16. Applicant argues that Masters fails to disclose wherein each of the distributed service managers includes a localization module, wherein the parameters within respective localization modules are tailored to provide different load balancing for corresponding distributed service managers. Masters, column 12, lines 35-65.

Claim Rejections - 35 USC § 102

17. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

18. Claims 3-12, 37-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Masters et al. (US 5,872,930).

19. In regard to claim 3, Masters disclosed:

initializing one or more local service managers within the distributed data processing system, wherein each local service manager has information about and provides access to networked services defined within a respective local region of the distributed data processing system for clients within the distributed data processing system, and wherein each client is uniquely associated with a local service manager; column 10, lines 59-67

initializing one or more distributed service managers within the distributed data processing system, wherein each distributed service manager provides access to networked services to local service managers within the distributed data processing system, and wherein each local service manager is uniquely associated with a distributed service manager; column 11, lines 1-14

receiving, at a distributed service manager, a request for a networked service from a local service manager for which the local service manager lacks information; column 10, lines 59-67; column 11, line 61 – column 12, line 13

determining whether the distributed service manager has information about a networked service with one or more characteristics that match one or more parameters in the request for a networked service, wherein the determining step is accomplished by reference to a cache maintained by the distributed service manager which contains information resulting from prior requests for networked services; and column 10, lines 59-67

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returning information about a matched networked service from the distributed service manager to the local service manager. Column 10, lines 59-67

20. In regard to claim 4, Masters disclosed:

sending a request for a networked service from a requesting client to a local service manager associated with the requesting client; and column 10, lines 59-67

returning information about a matching networked service from the local service manager to the requesting client, wherein the matching networked service has characteristics that match parameters in the request for a networked service. Column 10, lines 59-67; column 11, lines 26-33

21. In regard to claim 5, Masters disclosed:

receiving a request for a networked service at a local service manager; and column 11, lines 15-25

determining whether the local service manager has information about a networked service with characteristics that match parameters in the request for a networked service. Column 10, lines 59-67

22. In regard to claim 6, Masters disclosed:

responsive to a determination that the local service manager does not have information about one or more matching networked services, forwarding the request for a networked service from the local service manager to a distributed service manager associated with the local service manager. Column 11, lines 1-25

23. In regard to claim 7, Masters disclosed:

if the distributed service manager has information about a matching networked service, returning the information about the matching networked service to the local service manager; column 10, lines 59-67; column 11, lines 26-33

if the distributed service manager does not have information about a matching networked service, broadcasting the request for a networked service from the distributed service manager to

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all distributed service managers in the distributed data processing system; column 11, lines 1-14, column 11, line 61 – column 12, line 34

receiving information about one or more matching networked services at the distributed service manager in response to the broadcast request; and column 11, lines 26-33

caching the received information about one or more matching networked services at the distributed service manager. Column 11, lines 26-33

24. In regard to claim 8, Masters disclosed:

in response to a determination that the distributed service manager has information about two or more matching networked services, selecting a single networked service at the distributed service manager. Column 10, lines 59-67

25. In regard to claim 9, Masters disclosed:

performing a load balancing operation at the distributed service manager to select the single networked service. Column 12, lines 4-12

26. In regard to claim 10, 22, 34, Masters disclosed:

comparing network-related metrics during the load balancing operation. Column 12, lines 4-12

27. In regard to claim 11, Masters disclosed:

comparing one or more of network-related metrics associated with a network path between a requesting client and a providing server. Column 12, lines 35-58

28. In regard to claim 12, Masters disclosed:

the network-related metrics are realtime network-related metrics and are selected from a group comprising: bottleneck-link speed, round-trip time, and hop count. Column 12, lines 35-58

29. In regard to claim 37, Masters disclosed:

configuring the local service manager to not provide access to object request broker (ORB) services that provide internal service and which are valid only in a scope of a local ORB; "...a repository of information distributed across the LAN that defines which remote sites are

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reachable from any particular site and how those remote sites may be reached. Masters, column 10, lines 61-64.

configuring the local service manager to provide access to ORB services that are instantiated on each ORB only through requests based on an ORB identifier; and Masters, column 11, lines 15-25.

configuring the local service manager to provide access to ORB services that may be accessed from outside the scope of the local ORB through requests based on both a service specification string and an ORB identifier. "...a repository of information distributed across the LAN that defines which remote sites are reachable from any particular site and how those remote sites may be reached. Masters, column 10, lines 61-64.

30. In regard to claim 38, Masters disclosed:

determining whether the distributed service manager has information about a plurality of networked services with characteristics that match parameters in the request for a networked service and forming a set of matched network services; "...a repository of information distributed across the LAN that defines which remote sites are reachable from any particular site and how those remote sites may be reached. Masters, column 10, lines 61-64.

determining, based on the request, whether to return a single matched network service of the set of matched network services or the set of matched network services. "...a repository of information distributed across the LAN that defines which remote sites are reachable from any particular site and how those remote sites may be reached. Masters, column 10, lines 61-64.

responsive to a determination to return a single matched network service, returning information about the single matched network service from the distributed service manager to the local service manager; and "...a repository of information distributed across the LAN that defines which remote sites are reachable from any particular site and how those remote sites may be reached. Masters, column 10, lines 61-64.

responsive to a determination to return the set of matched network service, returning information about the set of matched network services from the distributed service manager to

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the local service manager. "...a repository of information distributed across the LAN that defines which remote sites are reachable from any particular site and how those remote sites may be reached. Masters, column 10, lines 61-64.

31. In regard to claim 39, Masters disclosed:

a plurality of types of networked services are available in the distributed data processing system, and wherein one of the characteristics of a matching service is a type of service. "...a repository of information distributed across the LAN that defines which remote sites are reachable from any particular site and how those remote sites may be reached. Masters, column 10, lines 61-64.

32. In regard to claim 40, Masters disclosed:

each of distributed service managers caches information resulting from requests of supported clients, and wherein the information which respective distributed service manager differs according to the requests of supported clients. "Each server also has its own directory service process by which other applications make requests to read and write information...The only requirement is that each server have connectivity to an instance of the directory service in order that information can be read or written as appropriate." Masters, column 11, lines 4-11. If a request is not present in the directory, it will contact the main directory service so information can be updated..."read or written as appropriate".

33. In regard to claim 41, Masters disclosed:

wherein each of the distributed service managers includes a localization module, wherein the parameters within respective localization modules are tailored to provide different load balancing for corresponding distributed service managers. Masters, column 12, lines 35-65.

Conclusion

34. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
35. Teper et al. US 5,815,665

36. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. Swearingen whose telephone number is (571)272-3921. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on 571-272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeffrey R. Swearingen
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Art Unit 2445

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